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Erratum: "NICER View of the 2020 Burst Storm and Persistent Emission of SGR 1935+2154" (2020, ApJL, 904, L21)

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We have been made aware that the arrival times of the SGR J1935+2154 radio bursts presented in Table 2 of Kirsten et al. (2021) are in the Coordinated Universal Time (UTC) system, corrected to the solar system barycenter (Kirsten et al. 2021). Unfortunately in Younes et al. (2020), we assumed that the radio burst times were given in Terrestrial Dynamical Time (TDT or TT), corrected to the solar system barycenter, i.e., in Barycentric Dynamical Time (TDB). Since we used the latter time system to obtain the SGR J1935 +2154 spin ephemerides (Section 4.1 in Younes et al. 2020), deriving the phases of the radio bursts using the times as presented in Kirsten et al. (2021) is erroneous (Younes et al. 2020, dotted blue lines in bottom panel of Figure 5).

The radio burst arrival times in the TDB system is 58993.93088958 and 58993.93090573 Modified Julian Day for B1 and B2, respectively (Kirsten et al. 2021; Kirsten et al. 2021). The correct rotational phases of the two bursts as compared to the X-ray pulse is shown in the corrected bottom panel of Figure 5. This figure supersedes the bottom panel of Figure 5 in Younes et al. (2020). Given that the two bursts still occur away from the peaks of the X-ray pulse, our conclusions in Section 5.3 are unaffected. Moreover, this correction does not affect any other element of the paper.

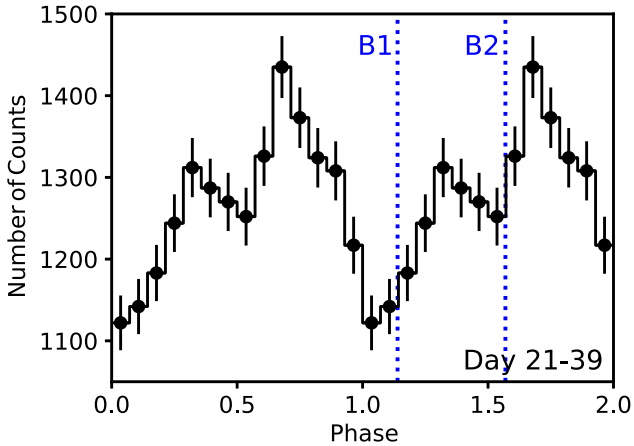

Figure 5. Pulse profile of the SGR J1935+2154 persistent emission as observed during days 21–39 post 2020 outburst. The dotted lines are the (now corrected) phases of the two radio bursts observed by Kirsten et al. (2021). This figure supersedes the bottom panel of Figure 5 in Younes et al. (2020). This correction does not affect any of our conclusions.

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